



Land Systems South Africa

Enhancing Convoy Security by means of Rapid Deployable Weapons

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Logistical Support Chain as Target

- Lessons learned during OIF
- Total dependence on Ammunition, Food and Fuel
- Unprotected, Isolated and Highly Vulnerable



Rules of Engagement since OIF

- Asymmetrical Warfare – No clear Battle Lines
- Battle moved from Open Spaces to Long Distance Engagements
- Off-road, Mine Protected, Ballistic Protection
- Logistical Vehicles were not Prepared for their new Role



Rapid Procurement supporting Crew Survivability

- New Procurement Programs of TCC
- Protection:
 - Armored Cabs
 - Add-on Armor
 - Bar Armor
 - Supporting Sub-systems
- Crew Protection against:
 - Small Arms
 - Shell Splinters
 - Anti-tank Mines
 - RGP's and IEDs
- All solutions proved to be Reasonable Effective



Protection influenced the Doctrine

- Crew Isolation during Self Defensive Role
- Compromising of Situational Awareness
- Cab encapsulation – Blast protection, no use of Personal Weapons



New dimension of Attack

- Threat moved away from Direct Attack
- Terrain variety – Close Terrain, Built-up Areas
- New Engagement Profiles and Posing Force not Identifiable
- New Advanced and Expensive Equipment Required
- Avoidance of IED attacks: Situational Awareness
- Exposed Soldiers in Biggest Danger



The Re-action of the Coalition Forces

- Operations Reactivity vs Situational Awareness
- US ' Long Terms Armor Strategy / MRAP / Up-Armor
- TCC's following similar Strategies



When the going gets tuff...

- Key element: How to Fight its way out of the Situation
- OIF Reports: Support and Sustainment: Under-Armed
- Success of coordinated use of crew-served Weapons
- Reliance on support vehicles during Single Track Convoy
- New role for Logisticians in Prevention of Attacks
- Integration of Emerging Technologies



New Emerging Technologies

- Users are Evaluating and Integrating new Technologies
 - Distributed Battle Space
 - Increases Situational Awareness
 - Survivability
 - Effective Combat Responsiveness
- Final Result: Protection of the Soldier
- RWS for Self Protection
- Interconnectivity – relay of SA Information between Vehicles



Any Suitable Solutions ?

- CROWS-2: Choice of the US Army – Not Ideally suited:
 - Cost, Size and Weight Impact
- The Suitable Solution: Compact, Light and Affordable
- Capable of:
 - Rapid Deployment
 - Interoperability
 - Flexible Response



Capable of: Rapid Deployment

- Technical Support in Base
- Preparation of Support Vehicles (Tactical / Strategic Roles)
- In Theatre:
 - Convoy Driving
 - Road Block Support
 - Escorting
 - Self Defense Role: Logistical Trucks, Light Support and Secondary Weapon
- Vehicles get prepared at short notice



Capable of: Interoperability

- Rapid and Coordinated Response
- Shot Detectors – Counter Measures
- Various Technologies and Sensors available



Shots List			
Shot number	2		
Playspot point	Asimuth	Elevation	Rt
East Check Point	27.50	2.83 deg	24
West Check Point	31.77	1.38 deg	24
Date	Time		
22-avr-02	1:44:32 PM		
SHOT ORIGIN from			
2 - West Check Point			
Asimuth	21.8°		
Elevation	1.2°		
Range	224m		
Bullet Speed	645m/s		
Caliber	7.62		

Capable of: Flexible Response

- Logistician not primarily a gunner
- Technology compatible with younger soldier
 - Video Interfaces
 - Play station Controls
- Rapid Target Designation



Various Recently Launched Products

- Various Weapons / Payloads
- Different Applications
- One common Goal: Protect the Operator



The BAE Systems' Solution

- Launched in 2010
- Multi-purpose application (Defensive / Offensive)
- Fully Operational from Under Cover
- Intuitive MMI
- Interoperability with other Sensors



Shaping the way towards Convoy Security

- Key Development Criteria
 - Low Cost
 - Low Weight
 - Simple to Use
- Shaping this simple solution proved to offer:
 - Rapid Deployment
 - Interoperability
 - Flexible Response



Another Unique (Non ITAR) solution from
South Africa



Protecting Those Who Protect Us

Thank you for your Attention



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